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CLAIMS

A slotless permanent magnet rotary electric machinery, comprising a 1. substantially cylindrical rotor incorporated with a permanent magnet, a stator iron core surrounding the rotor; and a coil provided between the rotor and stator core in a spaced relationship with respect to the rotor, characterized by that:

the coil comprises a plurality of turns which are shifted from one turn to another along the circumferential direction in a mutually overlapping manner; and the coil turns are formed by a conductor having an elongated cross section, a long axis of the cross section extending in a radial direction.

- A slotless permanent magnet rotary electric machinery according to claim 1, 2. wherein the conductor is provided with a rectangular cross section having a long side and short side, and the long side extends in a radial direction.
- A slotless permanent magnet rotary electric machinery according to claim 2, 3. wherein the conductor consists of a Litz wire conductor.
- A slotless permanent magnet rotary electric machinery according to claim 2, 4. wherein the rectangular cross section of the conductor are rounded at the four corners 20 thereof.
 - A method of making a coil for a slotless permanent magnet rotary electric 5. machinery, the coil including a plurality of turns of a flat conductor having a rectangular cross section including a long side and short side, the turns being formed